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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,961	01/24/2001	Tatsuya Takaoka	P100158-00024	2795

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EXAMINER

GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 08/01/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,961

Applicant(s)

TAKAOKA, TATSUYA

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is in response to Amendment B filed on 5/14/03. All previous 35 USC 112 rejections have been overcome.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3 and 7-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 requires "a pressed portion of said rubber strip and an extrusion outlet of said injection device disposed apart from one another at a length defining a space therebetween". Claim 9 requires "the pressed portion and the extrusion outlet being disposed apart from one another at a length defining an empty space therebetween". It is unclear where in the specification the space is defined as the space formed between the pressed portion and the extrusion outlet. The specification suggests the space is defined as the space formed between the guide roll and the extrusion outlet (See Page 5, lines 10-14). Further, claim 9 requires "a length

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defining an empty space”. It is unclear where in the specification the space is described as “empty”. Also, claim 9 requires “the continuously supplied, extruded rubber strip occupying the empty space and in contact with only the extrusion outlet and the guide roll”. It is unclear where in the specification the strip is limited to contacting only the extrusion outlet and the guide roll prior to it contacting the forming drum.

5. Claims 1-3 and 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 requires “continuously extruding an unvulcanized rubber strip”. Claim 12 requires “continuously extruding the rubber strip” and “continuously supplying the rubber strip”. It is unclear what is meant by describing the process as continuous although it is noted the specification provides support for the use of this word. It appears when the strip is cut extrusion would stop until a new forming drum was put into place, and thus, extrusion would not be continuous. If extrusion is not stopped after the strip is cut it is unclear what happens to the extruded strip while a new forming drum is supplied. This issue should be clarified and reworded as appropriate.

7. Claims 7 and 11 require “wherein the length of the space are in a range of 100 mm to 200 mm”. The claims as amended define the space as the space formed between the pressed portion and the extrusion outlet. However, as noted above this appears to be new matter as the specification suggests the space is defined as the space formed between the guide roll and the extrusion outlet. If the claims are amended to require the space to be defined as the space formed between the guide roll and the extrusion outlet it is unclear where on the guide roll this

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distance is measured from such that it is unclear what is required by the length of the space being in the range of 100-200 mm. This issue should be clarified and reworded as appropriate.

Claim Rejections - 35 USC § 102

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Stevens (U.S. Patent 4,371,410).

Stevens is directed to a method for wrapping a rubber strip around a forming drum (guide). Stevens teaches the method comprises continuously extruding a rubber strip, placing the rubber strip around a braked freewheeling guide roll (applicator roll which rotates freely when the brake is not applied), actuating the guide roll toward the forming drum such that the rubber strip contacts the guide roll and a space is formed between the guide roll and the entry of the extruded strip, removing the brake on the guide roll and rotating the forming drum so that the guide roll is driven in synchronism with the supplied rubber strip, wrapping the rubber strip around the forming drum, releasing the guide roll from the forming drum such that a clearance is formed between the guide roll and the forming drum, severing the rubber strip in the clearance, and pressing the severed end of the rubber strip against the forming drum using a press (stitching) roll (Figures 1-3 and Column 2, lines 16-19 and Column 3, lines 10-14, 27-39, and 46-63).

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Claim Rejections - 35 USC § 102/103

9. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stevens in view of Satoh et al. (U.S. Patent 5,059,268).

Stevens is directed to a method for wrapping a rubber strip around a forming drum (guide). Stevens teaches the method comprises continuously extruding a rubber strip, placing the rubber strip around a braked freewheeling guide roll (applicator roll which rotates freely when the brake is not applied), actuating the guide roll toward the forming drum such that the rubber strip contacts the guide roll and a space is formed between the guide roll and the entry of the extruded strip, removing the brake on the guide roll and rotating the forming drum so that the guide roll is driven in synchronism with the supplied rubber strip, wrapping the rubber strip around the forming drum, releasing the guide roll from the forming drum such that a clearance is formed between the guide roll and the forming drum, severing the rubber strip in the clearance, and pressing the severed end of the rubber strip against the forming drum using a press (stitching) roll (Figures 1-3 and Column 2, lines 16-19 and Column 3, lines 10-14, 27-39, and 46-63).

Regarding claim 2, it is noted Stevens recites severing the rubber strip and does not explicitly recite cutting. However, cutting only requires “to penetrate with or as if with an edged instrument” (See Webster’s), and thus, severing the rubber strip would include the same as cutting the rubber strip. In any event, one of ordinary skill in the art at the time the invention was made would have readily appreciated cutting the rubber strip taught by Stevens using an

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edged instrument as it was well known in the art to do so as shown for example by Satoh et al. and only the expected results would be achieved.

Satoh et al. are directed to a method of applying a rubber strip to a forming drum using an actuated freewheeling guide roll (applying roller). After the rubber strip is wrapped around the forming drum, Satoh et al. teach disengaging the guide roll, cutting the rubber strip using a pair of knives, and pressing the cut end onto the forming drum using a roller (Figure 1 and Column 4, lines 42-57 and Column 5, lines 64-68 and Column 6, lines 1-2 and 20-24).

10. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Soma et al. (JP 11048363) in view of Stevens and Satoh et al.

Soma et al. are directed to a method for wrapping a rubber strip around a forming drum. Soma et al. teach a method of wrapping the rubber strip comprising continuously extruding the rubber strip from an extrusion outlet of an injection device, continuously supplying the strip to a freewheeling guide roll, pressing the strip against the forming drum such that a space is formed between the pressed portion of the strip and the extrusion outlet wherein the strip is only in contact with the extrusion outlet and the guide roll, rotating the forming drum in synchronism with the extrusion of the strip such that the guide roll is driven, and wrapping the strip around the rotating forming drum while extruding the strip (Figures 1 and 4 and abstract and machine translation paragraph 11). It is noted that while Soma et al. appear to suggest the guide wheel is freewheeling if it is seen that the guide roll taught by Soma et al. is not free wheeling it would have been obvious to one of ordinary skill in the art at the time invention was made to use as the guide roll in Soma et al. a freewheeling guide roll as this type of guide roll was well known in

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the art as shown for example by Stevens and Satoh et al. for supplying the rubber strip and only the expected results would be achieved.

Stevens is directed to a method for wrapping a rubber strip around a forming drum (guide). Stevens teaches the method comprises continuously extruding a rubber strip, placing the rubber strip around a braked freewheeling guide roll (applicator roll which rotates freely when the brake is not applied), actuating the guide roll toward the forming drum such that the rubber strip contacts the guide roll and a space is formed between the guide roll and the entry of the extruded strip, removing the brake on the guide roll and rotating the forming drum so that the guide roll is driven in synchronism with the supplied rubber strip, wrapping the rubber strip around the forming drum, releasing the guide roll from the forming drum such that a clearance is formed between the guide roll and the forming drum, severing the rubber strip in the clearance, and pressing the severed end of the rubber strip against the forming drum using a press (stitching) roll (Figures 1-3 and Column 2, lines 16-19 and Column 3, lines 10-14, 27-39, and 46-63).

Satoh et al. are directed to a method of applying a rubber strip to a forming drum using an actuated freewheeling guide roll (applying roller). After the rubber strip is wrapped around the forming drum, Satoh et al. teach disengaging the guide roll, cutting the rubber strip using a pair of knives, and pressing the cut end onto the forming drum using a roller (Figure 1 and Column 4, lines 42-57 and Column 5, lines 64-68 and Column 6, lines 1-2 and 20-24).

Claim Rejections - 35 USC § 103

11. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens as applied above in paragraph 8, and further in view of Landsness (U.S. Patent 4,279,683).

Stevens teaches all of the limitations in claims 7 and 8 as applied above except for a specific teaching of the distance of the space. One of ordinary skill in the art at the time the invention was made would have readily appreciated determining the distance of the space taught by Stevens such that slack, i.e. overshoot, is removed prior to the strip reaching the guide roll as it was well known in the art to control this distance so that slack does not interfere with the wrapping operation as shown for example by Landsness.

Landsness is directed to forming a tire tread. Landsness teaches continuously extruding a rubber strip and applying the rubber strip to a forming roll to form the tread. Landsness teaches a dancer arm provided between the extrusion outlet and guide roll to remove slack from the extruded strip such that the slack does not interfere with applying the strip to the forming roll (Figure 1 and Column 2, lines 35-40).

12. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soma et al. (or Soma et al. in view of Stevens and Satoh et al.) as applied above in paragraph 10, and further in view of Satoh et al.

Soma et al. as applied above teach all of the limitations in claims 2 and 3 except for a specific teaching on how the extruded rubber strip is cut after the strip is wrapped around the forming drum. It would have been obvious to one of ordinary skill in the art at the time the invention was made to cut the extruded rubber strip taught by Soma et al. (or Soma et al. as modified by Stevens and Satoh et al.) using a cutter and trailing roller to press the cut end onto

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the forming drum as these were well known tools in the art for severing the rubber strip as shown for example by Satoh et al.

Satoh et al. are directed to a method of applying a rubber strip to a forming drum using an actuated freewheeling guide roll (applying roller). After the rubber strip is wrapped around the forming drum, Satoh et al. teach disengaging the guide roll, cutting the rubber strip using a pair of knives, and pressing the cut end onto the forming drum using a roller (Figure 1 and Column 4, lines 42-57 and Column 5, lines 64-68 and Column 6, lines 1-2 and 20-24).

13. Claims 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soma et al. (or Soma et al. in view of Stevens and Satoh et al.) as applied above in paragraph 10, and further in view of Landsness.

Soma et al. as applied above teach all of the limitations in claims 7, 8, 10, and 11 except for a specific teaching of the distance of the space. One of ordinary skill in the art at the time the invention was made would have readily appreciated determining the distance of the space taught by Soma et al. (or Soma et al. as modified by Stevens and Satoh et al.) such that slack, i.e. overshoot, is removed prior to the strip reaching the guide roll as it was well known in the art to control this distance so that slack does not interfere with the wrapping operation as shown for example by Landsness.

Landsness is directed to forming a tire tread. Landsness teaches continuously extruding a rubber strip and applying the rubber strip to a forming roll to form the tread. Landsness teaches a dancer arm provided between the extrusion outlet and guide roll to remove slack from the extruded strip such that the slack does not interfere with applying the strip to the forming roll (Figure 1 and Column 2, lines 35-40).

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14. Claims 1-3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka et al. (U.S. Patent 6,372,070) in view of Stevens and Satoh et al.

Iizuka et al. are directed to a method for wrapping a rubber strip around a forming drum. Iizuka et al. teach a method of wrapping the rubber strip comprising continuously extruding the rubber strip from an extrusion outlet of an injection device, continuously supplying the strip to a guide roll, pressing the strip against the forming drum such that a space is formed between the pressed portion of the strip and the extrusion outlet wherein the strip is only in contact with the extrusion outlet and the guide roll, rotating the forming drum in synchronism with the extrusion, and wrapping the strip around the rotating forming drum while extruding the strip (Figure 3 and Column 4, lines 24-27 and 66-67 and Column 5, line 1 and Column 6, lines 33-38, 54-57, and 63-65). Iizuka et al. are silent as to using a freewheeling guide roll that is driven by the forming drum. However, it is noted Iizuka et al. teach the driving means for guide roll is not critical such that it would have been obvious to one of ordinary skill in the art at the time invention was made to use as the guide roll in Iizuka et al. a freewheeling guide roll as this type of guide roll was well known in the art as shown for example by Stevens and Satoh et al. for supplying the rubber strip and only the expected results would be achieved.

Regarding claims 2 and 3, Iizuka et al. are silent as to how the extruded rubber strip is cut after the strip is wrapped around the forming drum. It would have been obvious to one of ordinary skill in the art at the time the invention was made to cut the extruded rubber strip taught by Iizuka et al. using a cutter and trailing roller to press the cut end onto the forming drum as these were well known tools in the art for severing the rubber strip as shown for example by Satoh et al.

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Stevens is directed to a method for wrapping a rubber strip around a forming drum (guide). Stevens teaches the method comprises continuously extruding a rubber strip, placing the rubber strip around a braked freewheeling guide roll (applicator roll which rotates freely when the brake is not applied), actuating the guide roll toward the forming drum such that the rubber strip contacts the guide roll and a space is formed between the guide roll and the entry of the extruded strip, removing the brake on the guide roll and rotating the forming drum so that the guide roll is driven in synchronism with the supplied rubber strip, wrapping the rubber strip around the forming drum, releasing the guide roll from the forming drum such that a clearance is formed between the guide roll and the forming drum, severing the rubber strip in the clearance, and pressing the severed end of the rubber strip against the forming drum using a press (stitching) roll (Figures 1-3 and Column 2, lines 16-19 and Column 3, lines 10-14, 27-39, and 46-63).

Satoh et al. are directed to a method of applying a rubber strip to a forming drum using an actuated freewheeling guide roll (applying roller). After the rubber strip is wrapped around the forming drum, Satoh et al. teach disengaging the guide roll, cutting the rubber strip using a pair of knives, and pressing the cut end onto the forming drum using a roller (Figure 1 and Column 4, lines 42-57 and Column 5, lines 64-68 and Column 6, lines 1-2 and 20-24).

15. Claims 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka et al., Stevens, and Satoh et al. as applied above in paragraph 14, and further in view of Landsness.

Iizuka et al., Stevens, and Satoh et al. as applied above teach all of the limitations in claims 7, 8, 10, and 11 except for a specific teaching of the distance of the space. One of

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ordinary skill in the art at the time the invention was made would have readily appreciated determining the distance of the space taught by Iizuka et al. as modified by Stevens and Satoh et al. such that slack, i.e. overshoot, is removed prior to the strip reaching the guide roll as it was well known in the art to control this distance so that slack does not interfere with the wrapping operation as shown for example by Landsness.

Landsness is directed to forming a tire tread. Landsness teaches continuously extruding a rubber strip and applying the rubber strip to a forming roll to form the tread. Landsness teaches a dancer arm provided between the extrusion outlet and guide roll to remove slack from the extruded strip such that the slack does not interfere with applying the strip to the forming roll (Figure 1 and Column 2, lines 35-40).

Response to Arguments

16. Applicant's arguments with respect to claims 1-3 and 7-11 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues Stevens does not teach "continuously extruding an unvulcanized rubber strip from an injection device and wrapping the rubber strip around the forming drum while extruding the unvulcanized rubber strip". It is noted the rubber strip is supplied by an extruder not shown in an established path such that the process taught by Stevens is continuous in the same sense as applicants, i.e. the rubber strip is continuously extruded with one end of the strip being wrapped around a rotating forming drum until the strip is cut from the rotating drum wherein at that point the process is no longer continuous. Applicant further argues Stevens "fails to teach the step of rotating the forming drum in synchronism with extrusion of the rubber strip so that a guide roll is driven". It is noted

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the rubber strip is supplied by an extruder not shown in an established path such that the drum would be rotating at the same time of, i.e. in synchronism with, the extrusion. Further, the guide roll taught by Stevens is freewheeling such that inherently the guide roll would be driven by the rotating drum.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the

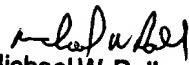
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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John L. Goff
July 28, 2003



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700